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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,066	06/25/2001	Duriez Gilbert	612.40180X00	1768

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EXAMINER

SIEFKE, SAMUEL P

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/887,066

Applicant(s)

GILBERT ET AL.

Examiner

Samuel P Siefke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

In view of the Appeal Brief filed on 11/17/04, PROSECUTION IS HEREBY REOPENED. New 103 rejections are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims **9-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Issenmann (USPN 5,090,256) in view of Cheney et al. (USPN 5,566,720).

Issenmann teaches a method and apparatus for sampling the gaseous content of a liquid by providing a means for extracting in the gaseous form hydrocarbons contained in a liquid drilling fluid after drilling in a reservoir rock. The method and apparatus are particularly applicable to the sampling of drilling mud from an oil well exploration site for purposes of analyzing the hydrocarbon content of the drilling mud (abstract). Predetermined quantity of liquid is degassed over a certain period of time and the gas released from the predetermined quantity of liquid is drawn off and transported to an analyzing and measuring device (col. 3, lines 2-7). The drilling mud of the oil well is sampled and degassed to obtain and analyze hydrocarbon gases which were occluded in the mud of the oil well. The analyzing and measuring device is conventional, and may be a flame ionization measuring device (col. 3, lines 11-18; col. 4, lines 19-20; col. 5, lines 58-63). The liquid laden with solids is obtained as close as possible to its source to prevent the escape therefrom of gases occluded therein. The arrangement for collecting and delivering the liquid laden with solids to the degassing device 23 comprises a rotary pump 19. The degassing device 23 is a container for receiving the liquid laden with solids. A nozzle 24 is connected to the degassing device 23. A flexible tube 25 is connected to the nozzle for conveying gases released from the liquid inside the container of the degassing device 23 to a collecting tube 26 mounted thereto. The collecting tube 26, in turn, delivers the gases through a tube 27 to an analyzing device (not shown) (col. 5, lines 53-63). All of the gaseous elements

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contained in the drilling mud are actual light hydrocarbons ranging from methane to normal pentane. These hydrocarbons are extracted at a rates of at least 85 to 90%, whatever the type and density of the drilling mud transporting the hydrocarbons to the surface. This is still true even if the drilling mud has a solvent base, such as gas oil, fuel oil, or crude oil (col. 8, lines 28-35). It is inherent in Issenmann that the tubular line is several ten meters long because in the case of oil exploration the source being the well head, the extracted gas must travel to the analyzing devices (col. 8, lines 9-23).

Issenmann does not teach any information regarding the specific material that is in the transport tubing.

Cheney teaches an elongated fuel and vapor tube having multiple layers suitable for conveying fluids containing hydrocarbons having a first layer disposed radially innermost and having an inner surface capable of prolonged exposure to the hydrocarbon-containing fluid that comprises of a fluoroplastic material being a terpolymeric material containing tetrafluoroethylene, vinylidene difluoride and hexafluoropropylene (abstract, col. 3, lines 37-40; col. 4, lines 18-33), the inner tube being externally protected by at least one other sheath (claim 1). It would have been obvious to one having an ordinary skill in the art at the time to modify Issenmann to include the elongated fuel and vapor tube of Cheney because of the increased retention time of the hydrocarbons in the tubing during the transporting to the analyzer or the measurement means and to limit retention of trace hydrocarbons so that the samples can be analyzed in there purest form when transported from the degassing apparatus.

Regarding claim 11 and 19, the thickness of the inner tube ranges between 0.1 mm and 0.5 mm. Cheney teaches the inner tubing having a **total wall thickness** of between about 0.5 mm and 2 mm. At its smallest wall thickness 0.5 mm the wall comprises of three layers, an innermost, a secondary sub layer, and a second layer, a total of three layers (claim 14; col. 4, lines 34-46). Therefore at least one of the layers is below 0.5 mm because the total wall thickness is 0.5 mm, the inner layers would have to be smaller than the total thickness. It would have been obvious to one having an ordinary skill in the art to modify Cheney to have a inner tube thickness between 0.5 mm and 0.1 mm because this size of inner tubing would allow limited retention of hydrocarbons.

Regarding claim 12 and 20, the thickness of the inner tube ranges between 0.1 and 0.2 mm. Cheney and Issenmann are silent to this thickness. However, such is considered a result effective variable. It would have been obvious to one having an ordinary skill in the art at the time the invention was made to determine through routine experimentation an optimal thickness of the inner tube thickness that would limit retention of hydrocarbons while still providing sufficient pressure resistance.

Regarding claims 13, 14, 21 and 22, the inside diameter of the inner tube ranges between 3 and 12 mm and preferably between 6 and 10 mm. Cheney and Issenmann are silent to this thickness. However, such is considered a result effective variable. It would have been obvious to one having an ordinary skill in the art at the time the invention was made to determine through routine experimentation an optimal inner tube

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diameter that would provide a reasonable sample size for analysis without interference with the normal operation of an oil well head device.

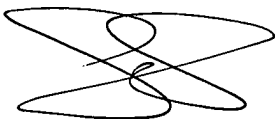
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam P. Siefke



February 14, 2005


Jill Warden
Supervisory Patent Examiner
Technology Center 1700